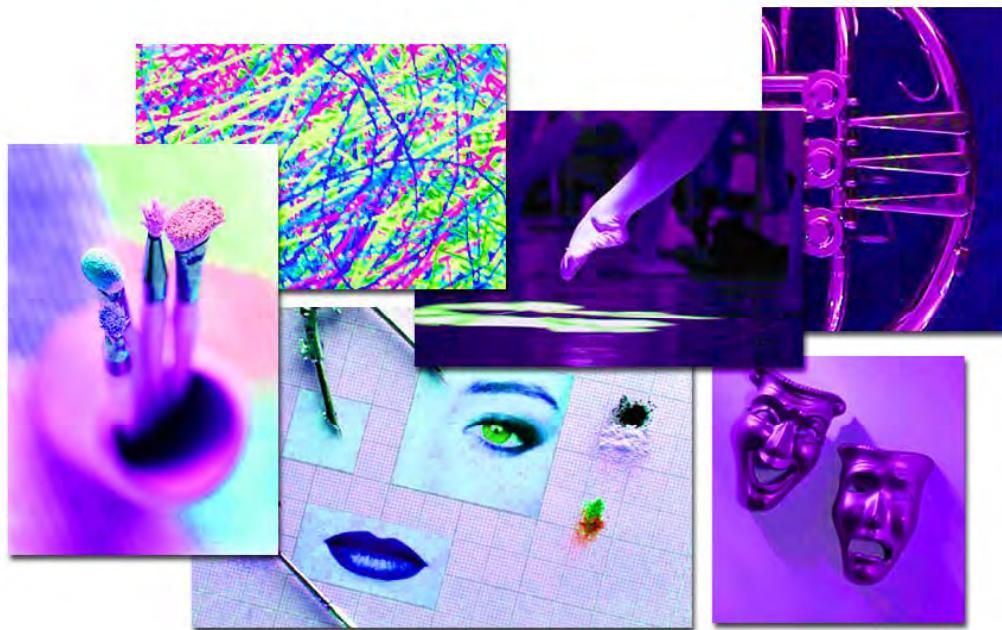


Creativity and the Economy



An Assessment of the Economic Impact of Missouri's Creative Industries

November 2004



Executive Summary

Defining the Creative Industries

Creative Industries employ more arts, sports, and media workers than the state average. Above average concentrations of arts, sports, and media workers show that these industries rely heavily on the arts.

Creative Industries in Missouri fall into four categories. These include:

- ***Fine Arts:*** self-employed artists, teachers, and performing arts companies.
- ***Media and Information Services:*** publishing and broadcast, motion picture industry, and sound recording and reproduction.
- ***Commercial Arts and Sports:*** promoters of performing arts and similar events and spectator sports.
- ***Professional Design Services:*** advertising, floral, graphic, and interior design, and other professional services.

Creative Industry Impacts on the Missouri Economy

- **Employment**
 - There are over 6,000 creatively oriented businesses and not-for-profits organizations in Missouri.
 - Creative Industries directly employ over 69,000 workers in the state. This is approximately three percent of total statewide employment.
 - Including the impacts of spin-off jobs created through industry and household spending, Creative Industries in Missouri support over 135,000 jobs.
- **Wages**
 - The average annual wage in the Creative Industries in Missouri is \$37,874. This is eleven percent higher than the annual average wage for all industries in Missouri which is \$34,004.
 - Total annual labor income earned by workers in the Creative Industries is over \$2.635 billion dollars.
 - Factoring in the spin-off income created by the Creative Industries, total annual labor income supported by these industries is greater than \$4.793 billion dollars.

Location of the Creative Industries

- Employment in the Creative Industries can be found in every county in Missouri.
- Creative Industries have the largest employment numbers in the Kansas City and St. Louis metropolitan areas. Other areas with large numbers of creative industry employment include Greene (Springfield), Taney (Branson), and Boone (Columbia) counties.
- Areas with large Creative Industry employment relative to total employment include Linn, Taney, Jackson, St. Louis City, and Pettis counties.

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I. Introduction: Creative Industries and Economic Development

Recent economic development research has found that the presence of arts-centric organizations in a region tends to drive economic growth. The explanation given for this is that arts centric organizations provide cultural amenities that make a region more attractive to well educated people – exactly the type of workers required by fast growing knowledge industries.

Many in the economic development field have argued that the economic impact of the arts cannot be estimated based solely upon the number of jobs generated by arts-centric industries. They assert that the prevalence of the arts has an indirect positive effect on the regional economy by making a region a more desirable place for well-educated, creative people to live. The desirability of the region attracts residents with high human capital, in turn attracting high-tech and information based businesses that are willing to locate in areas where they can find well-educated, motivated employees who are willing to work for reasonable wages. This phenomenon has been documented in several economic reports and academic works including The Rise of the Creative Class by Richard Florida, which was published in 2002.ⁱ

This report does not explore such extended economic impacts. Instead it looks only at employment and economic activity generated by the creative industries themselves. However, readers should keep in mind that if a creative class drives economic development then economic impacts of the creative industries may be much greater than what is reported here.

Another factor that may cause the numbers in this report to be conservative is that two industries, museums and architecture, were omitted from the creative industry definition because of how they are staffed. With regard to architecture, these occupations are generally considered technical occupations not related to the arts. With regard to museums, these establishments employ very low numbers of artistic workers.

Despite the omissions mentioned above, the numbers in this report provide strong evidence that arts-centric industries have a significant and positive impact on the Missouri economy. This information coupled with studies showing that the presence of cultural amenities can actually expand economies by attracting new businesses further supports the arts as an important consideration in Missouri's plan for economic development.

II. Data and Methods

Data

Data for this study were taken from the *Occupational Employment Statistics*, the *Quarterly Census of Employment and Wages*, and *Employment Projections*. The *Occupational Employment Statistics (OES)* program produces employment and wage estimates for over 700 occupations. These are estimates of the number of people employed in certain occupations and estimates of the wages paid to them. Self-employed persons are not included in the estimates. These estimates are available for the nation as a whole, for individual states, and for metropolitan areas.

The *Quarterly Census of Employment and Wages (QCEW)* program publishes a quarterly count of employment and wages reported by employers covering 98 percent of U.S. jobs. Data for both the OES and the QCEW are collected and published by the Bureau of Labor Statistics at the United States Department of Labor.

Industry and occupation employment projections are produced by the Missouri Economic Research and Information Center (MERIC), with funding and technical assistance provided by the Employment and Training Administration and the Bureau of Labor Statistics at the US Department of Labor. Projections are statistically derived using historic employment and population data taken from the Bureaus of Census, Economic Analysis, and Labor Statistics.

Methods

Definition of Creative Industries

Creative industries are defined as those industries that employ a significant number of arts, media, and sports related workers. Industry reliance on the arts is calculated by determining the percentage of occupations within an industry that fall into the category of 'Arts, Design, Sports, and Media Occupations' as classified by Standard Occupational Classifications, set forth by the federal government. Any industry whose percentage employment of arts related occupations falls at least one standard deviation above the mean arts employment for an industry is classified as a creative industry. In the case of this study, any industry with more than ten percent (equivalent to one standard deviation above the mean) employment of creative occupations was defined as a creative industry. A list of the industries included as well as the mean and standard deviation for arts, media, and sports related employment can be found in Appendix One.

Economic Impact of the Creative Industries

Economic impact was calculated using the IMPLAN input-output model to analyze direct, indirect, and induced effects of the creative industries on the Missouri economy. *Direct effects* of the creative industries are the economic impacts directly attributable to the presence of these industries. These include jobs and wages generated by employment in these industries. *Indirect effects* are business-to-business economic impacts (i.e. the impact that would be felt by other businesses if creative industries were not present in the Missouri economy.) *Induced effects* are the impacts that would occur in business to consumer transactions and household expenditures. The total of *direct*, *indirect*, and *induced* impacts shows the total impact that creative industries have on the Missouri economy. For a detailed explanation of the IMPLAN methodology see Appendix Two.

III. Creative Industries

What are the Creative Industries?

Creative industries are defined as those businesses and not-for-profit organizations that employ a significant number of arts workers. Industry reliance on the arts is calculated by comparing average employment of arts, sports, and media occupations across industries and selecting those industries that have significantly higher than average reliance on these occupations. Industry data used for this study was classified using the North American Industry Classification System (NAICS), an industry classification system that has been used by the United States, Mexico, and Canada since 1997. Due to data classification constraints self-employed workers who do not pay unemployment insurance have been excluded from the report. For this reason the employment and impact numbers presented below are somewhat conservative.

Creative industries in Missouri can be divided into four sub-sectors. These are: 1) Media and Information Services, 2) Fine Arts, 3) Professional Design Services, and 4) Commercial Arts and Sports. Table 1 below lists the four sub-sectors as well as the industries that fall within each category.

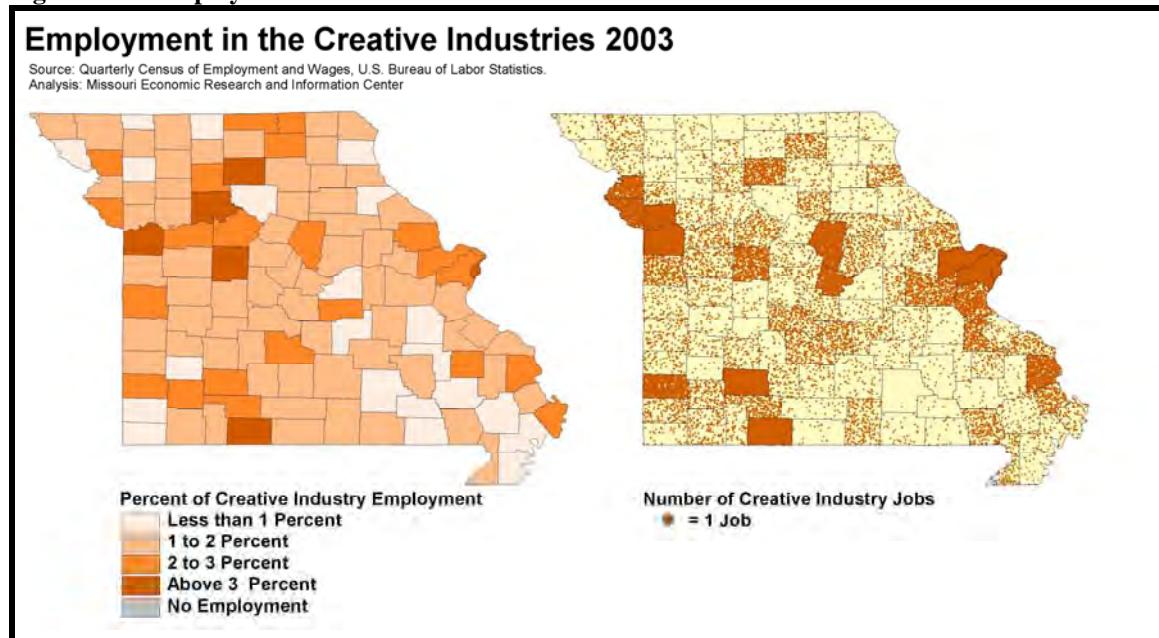
Table One: Creative Industry Sub-sectors

Sub-sector	Industries in This Sub-sector	NAICS
Media & Information	<ul style="list-style-type: none">• Motion Picture and Video Industries• Sound Recording Industries• Radio and Television Broadcasting• Newspaper, Periodical, Book, and Directory Publishers• Internet Publishing and Broadcasting• Other Information Services• Manufacturing and Reproducing Magnetic and Optical Media	<ul style="list-style-type: none">• 5121• 5122• 5151• 5111• 5161• 5191• 3346
Fine Arts	<ul style="list-style-type: none">• Independent Artists, Writers, & Performers• Performing Arts Companies• Schools and Instruction	<ul style="list-style-type: none">• 7115• 7111• 6116
Professional Design Services	<ul style="list-style-type: none">• Specialized Design Services• Advertising and Related Services• Florists• Other Professional, Scientific, and Technical Services• Commercial and Industrial Machinery and Equipment Rental and Leasing	<ul style="list-style-type: none">• 5414• 5418• 4531• 5419• 5324
Commercial Arts/Sports	<ul style="list-style-type: none">• Promoters of Performing Arts, Sports, and Similar Events• Spectator Sports	<ul style="list-style-type: none">• 7113• 7112

Creative Industry Overview

There are over 6,000 creatively oriented businesses and not-for-profit organizations in Missouri. They contribute over 69,000 jobs to the Missouri economy, accounting for approximately three percent of total employment in the state. The annual average wage in the creative industries in Missouri is \$37,874. This is higher than the annual average wage for all industries in Missouri of \$34,004. Figure One below shows employment in the creative industries for 2003. Employment percentages have been calculated by county.

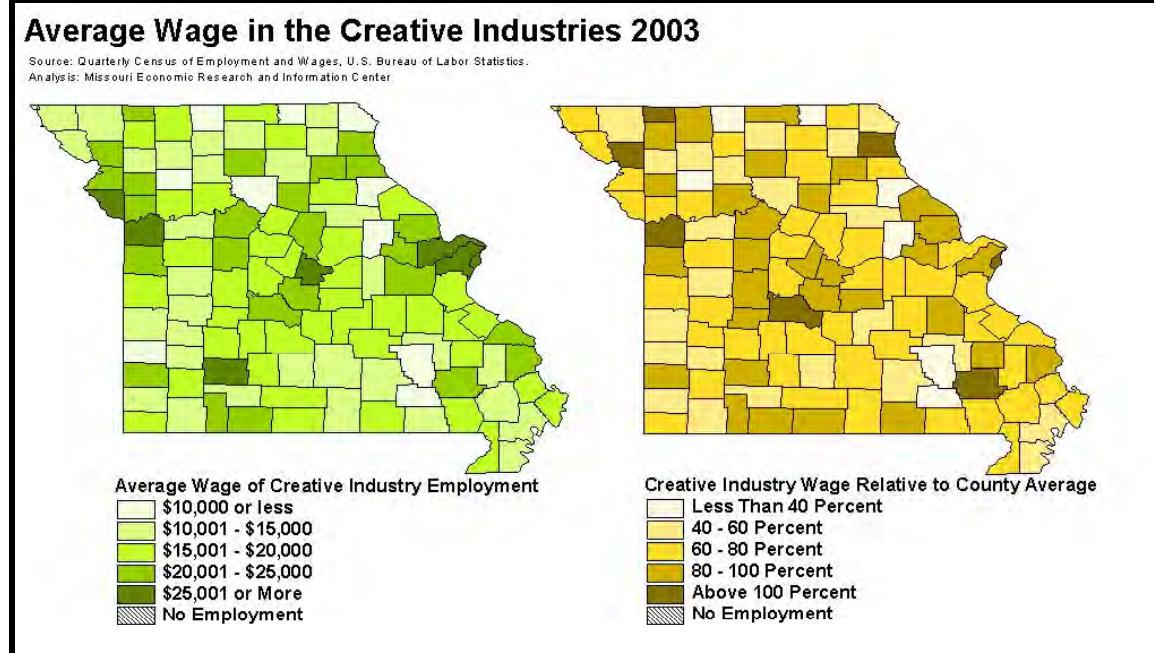
Figure One: Employment in the Creative Industries



As Figure One shows, employment in the creative industries is highest in metropolitan areas such as Kansas City, St. Louis, Springfield, Joplin, Columbia, and Jefferson City. In addition to the major metropolitan areas, some rural Missouri counties show a high percentage of creative industry employment. Often this stems from a major employer being located in that county. One example of industry concentration is Linn County, which shows high creative industry employment due to the fact that it is the location for a large publishing company.

Figure Two shows average wages of Missouri's creative industries by county. Because there are substantial discrepancies in average wage between urban and rural counties, the maps below show both average wages in the county and relative wage comparisons to the average wage for the county. In some rural counties of Missouri, relative wage may be high despite the fact that average wages are low. An example of this in the map below is Wayne County. Although Wayne County's average wages in the creative industries is only slightly over \$20,000 annually, this is higher than the annual average wage for all industries in Wayne County which is \$18,905.

Figure Two: Average Wage in the Creative Industries



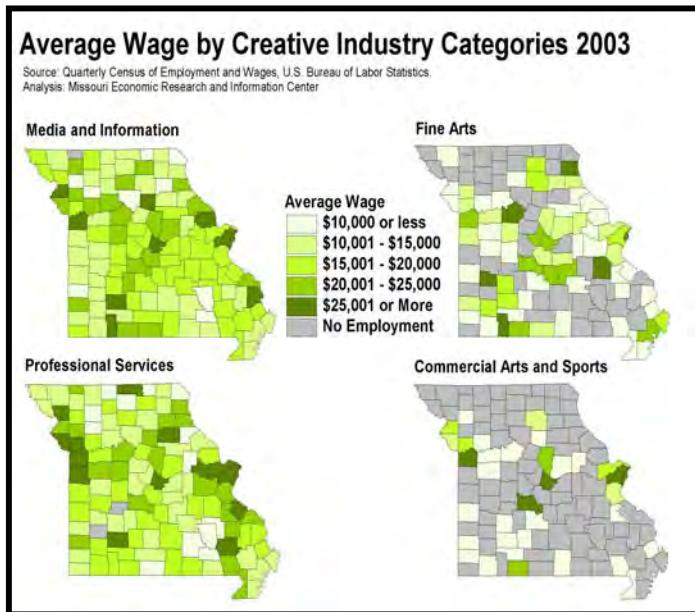
Creative Industry Sub-sector Overview

Within the creative industries, wages and employment vary considerably between the four sub-sectors. The largest sub-sector is Media and Information, a sector that provides approximately 46 percent of creative industry jobs. Ten percent of creative industry employment is in the sub-sector of Fine Arts, 36 percent of employment is in Professional Design Services, and seven percent is in Commercial Arts and Sports. The number of businesses/not-for-profits in each sub-sector as well as employment and average wages are listed in Table Two below. Since wages vary widely by county, Figures Three and Four provide information on average and relative wages for the four sub-sectors of the creative industries.

Table Two: Average Wages of the Creative Industry Sub-sectors

Creative Industry Sub-sector	Number of Businesses/ Not-for-Profits	Employment	Average Wage
Media & Information	1,150	32,129	\$34,500
Fine Arts	920	7,213	\$20,000
Professional Design Services	3,486	24,900	\$35,000
Commercial Arts & Sportsⁱⁱ	203	5,047	\$100,000

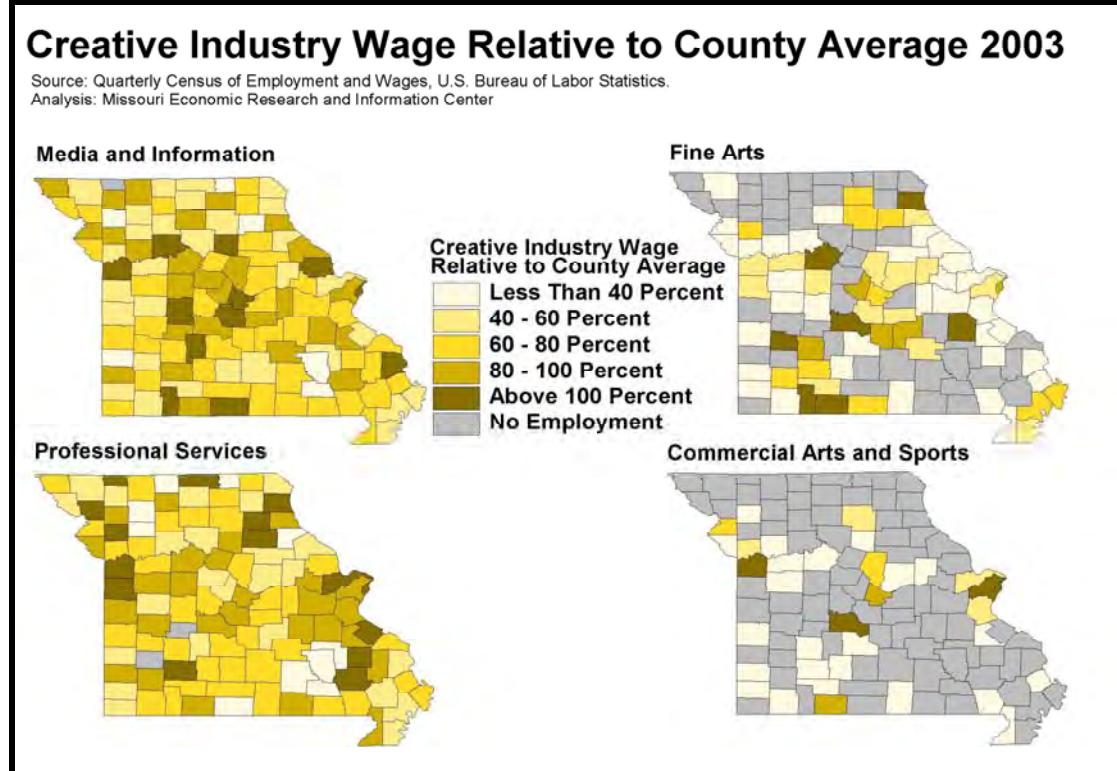
Figure Three: Average Wage by Creative Industry Category



standard of living throughout the state.

Aside from Commercial Arts and Sports, which has a high wage bias due to the presence of professional athletes, the sub-sector with the highest wages is Media and Information. Employment in this sub-sector is present throughout the entire state as opposed to other sub-sectors that have limited employment in some of the more rural areas of Missouri. The map of average wages should be used in conjunction with Figure Four which maps relative wages in order to understand where the arts industries enable Missouri residents to obtain the highest

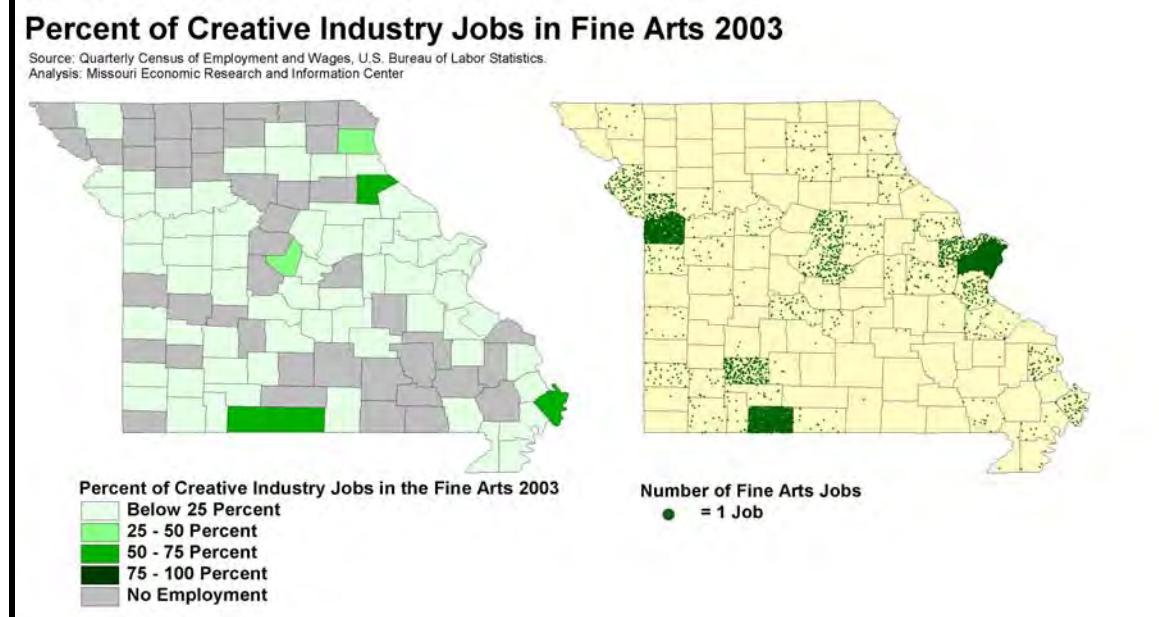
Figure Four: Creative Industry Wage Relative to Average County Wages



The concentration of creative industry employment varies according to sub-sector. Although all sub-sectors show the highest concentration of jobs in the major metropolitan areas, Figures Five through Eight demonstrate the differences in employment between the various sub-sectors.

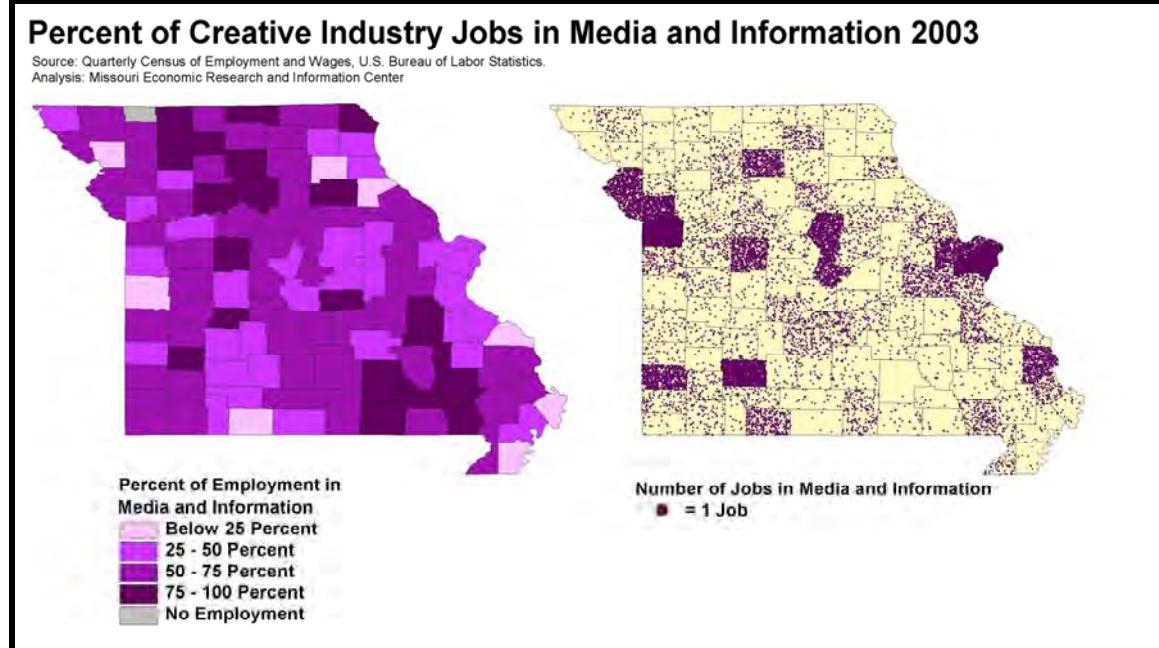
Fine Arts employment includes the industry categories of independent artists, writers, and performers, performing arts companies, and other schools and instruction. It is heavily concentrated in major metropolitan areas. High concentrations of employment in this sub-sector can also be found in the Taney County where the tourist attraction of Branson is located.

Figure Five: Creative Industry Employment in Fine Arts



The Media and Information sub-sector has the largest employment. Media and Information includes the industry categories of publishers, motion picture and video, sound recording, other information services, and manufacture/reproduction of magnetic and optical media. Employment is widely scattered throughout the state due to the presence of newspapers and radio broadcasting stations in almost every Missouri county.

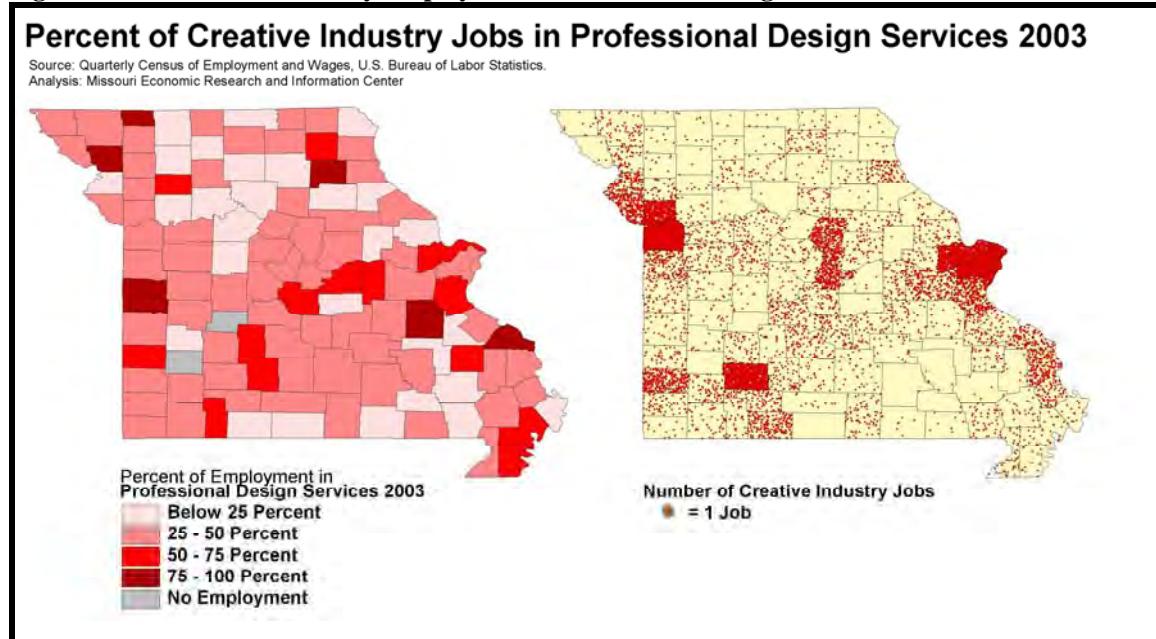
Figure Six: Creative Industry Employment in Media and Information



Professional Design Services employment includes the industry categories of specialized design services, advertising and related services, and florists. Two additional categories in this sub-sector are commercial and industrial machinery and equipment rental and leasing and other professional, scientific, and technical services.

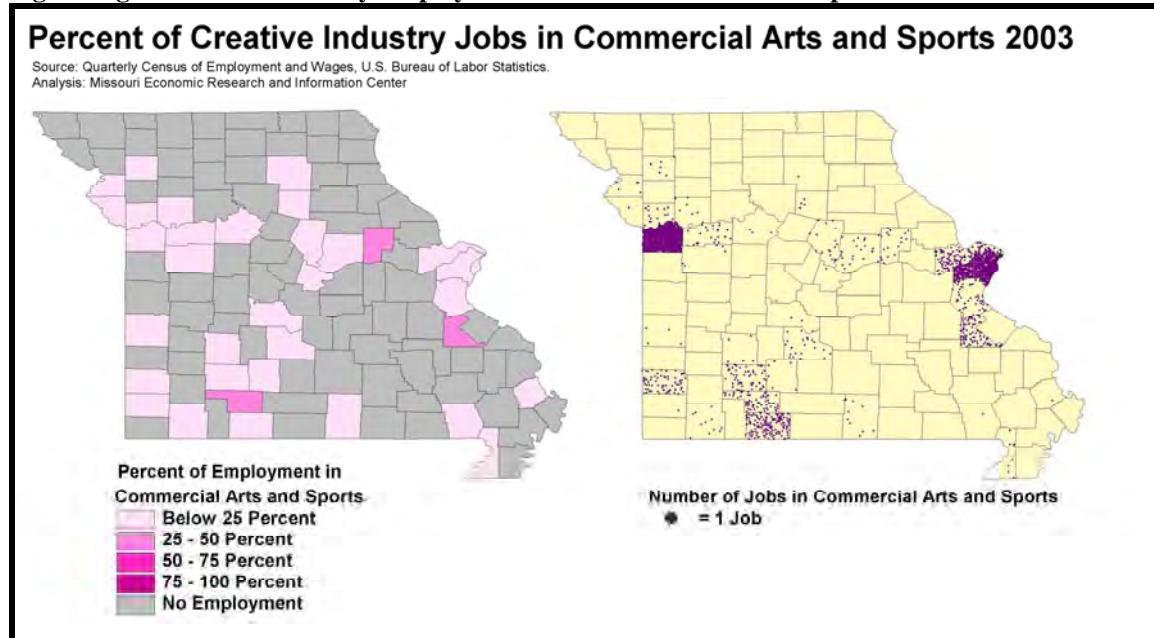
The last two categories in Professional Design Services require some elaboration. ‘Commercial and industrial machinery and equipment rental and leasing’ falls into the creative industry definition due to the fact that there is high employment of interior designers, sound engineering technicians, producers, and directors in this industry. The category of ‘other professional, scientific, and technical services’ is classified as a creative industry because it employs a high number of photographers and graphic designers. However, due to the NAICS classification system sixteen percent of employment in this industry consists of veterinary and veterinary assistant occupations. Since it was impossible to exclude this portion of the occupation data from the category, some industries in rural Missouri classified as ‘other professional, scientific, and technical services’ may actually be veterinarian establishments rather than businesses or not-for-profits related to the creative industries.

Figure Seven: Creative Industry Employment in Professional Design Services



The final creative industry sub-sector is Commercial Arts and Sports. Commercial Arts and Sports includes the industry categories of promoters of performing arts, sports, and similar events, and spectator sports. Sports related industries were included in the creative industry study due to the fact that the Occupational Employment Statistics program classifies sports occupations in the same category as arts occupations. However, as the map below shows, there are relatively few Commercial Arts and Sports industry occupations and some of these are promoters of performing arts so that the actual economic impact of sports is quite low as a percent of total creative industry impact.

Figure Eight: Creative Industry Employment in Commercial Arts and Sports



IV. The Economic Impact of Creative Industries in Missouri

The presence of creative industries in Missouri has several different effects on the economy. Effects are broken into three categories. *Direct effects* of the creative industries are the economic impacts directly attributable to the presence of these industries. These include jobs and wages generated by employment in these industries. *Indirect effects* are business-to-business economic impacts (i.e. the impact that would be felt by other businesses if creative industries were not present in the Missouri economy.) *Induced effects* are the impacts that would occur in business to consumer transactions and household expenditures. The total of *direct*, *indirect*, and *induced* impacts shows the total impact that creative industries have on the Missouri economy. Data used in this section of the report were generated by IMPLAN, economic forecasting software that is described in further detail in Appendix Two.

Employment Impacts

Table Three shows the direct, indirect, induced, and total effects of creative industries on employment in Missouri. Direct employment effects are the number of jobs that are generated by the creative industries in Missouri. As Table Three shows, 69,250 jobs are generated directly by creatively oriented businesses and not-for-profit organizations. Indirect effects show jobs that are generated as a result of business spending by the creative industries and account for 24,290 jobs. Induced effects are generated due to household spending as a result of the creative industry presence in Missouri and account for 41,827 jobs. In total, Missouri's current level of creative industries supports over 135,000 jobs.

Table Three: Employment Impacts of the Creative Industries

NAICS	INDUSTRY	DIRECT EFFECT	INDIRECT EFFECT	INDUCED EFFECT	TOTAL EFFECT
51	Media and Information	31,866	4,208	550	36,624
54	Professional, Scientific & Technical Services	20,857	3,336	1,667	25,860
71	Arts, Entertainment & Recreation	8,674	1,375	913	10,962
61	Educational Services	3,587	128	967	4,682
44 & 45	Retail Trade	2,298	614	7,556	10,467
53	Real Estate & Rental	1,705	1,426	2,007	5,138
31, 32 & 33	Manufacturing	263	1,901	1,563	3,727
11	Agriculture, Forestry, Fishing & Hunting	0	45	651	696
21	Mining	0	7	22	30
22	Utilities	0	70	188	258
23	Construction	0	309	270	579
42	Wholesale Trade	0	1,158	1,663	2,821
48 & 49	Transportation & Warehousing	0	1,757	1,421	3,178
52	Finance & Insurance	0	1,069	2,377	3,446
55	Management of Companies	0	475	306	780
56	Administrative & Waste Services	0	3,793	1,983	5,776
62	Health & Social Services	0	3	8,119	8,121
72	Accommodation & Food Services	0	1,353	5,172	6,525
81	Other Services	0	1,037	3,944	4,981
92	Government & Industries not Classified by the North American Industry Classification System	0	226	487	713
TOTAL		69,250	24,290	41,827	135,366

Labor Income Impacts

Table Four shows the impact that the creative industries have on employment income in Missouri. Direct effects show labor income generated as a direct result of the presence of the creative industries in Missouri. As Table Four shows, over 2.6 billion dollars in labor income is directly generated by creatively oriented businesses and not-for-profit organizations. Indirect effects show labor income generated as a result of business spending by the creative industries and account for approximately 960 million dollars in labor income. Induced effects are generated due to household spending as a result of the creative industry presence in Missouri and account for approximately 1.2 billion dollars in labor income. In total, the current level of creative industries in Missouri supports over \$4.793 billion dollars in labor income for employees in the state.

Table Four: Labor Income Impacts of the Creative Industries

NAICS	INDUSTRY	DIRECT EFFECT	INDIRECT EFFECT	INDUCED EFFECT	TOTAL EFFECT
51	Media and Information	\$1,091,751,040	\$140,488,416	\$31,391,274	\$1,263,630,720
54	Professional, Scientific & Technical Services	\$776,368,640	\$166,085,216	\$80,034,336	\$1,022,488,128
71	Arts, Entertainment & Recreation	\$595,003,008	\$168,650,752	\$29,354,618	\$793,008,384
53	Real Estate & Rental	\$73,092,000	\$26,396,002	\$30,373,666	\$129,861,672
61	Educational Services	\$51,160,996	\$3,940,882	\$25,578,636	\$80,680,520
44 & 45	Retail Trade	\$32,546,576	\$13,778,036	\$164,230,624	\$210,555,232
31, 32 & 33	Manufacturing	\$15,740,000	\$76,918,496	\$64,144,164	\$156,802,656
21	Mining	\$0	\$93,588	\$231,040	\$324,628
11	Agriculture, Forestry, Fishing & Hunting	\$0	\$409,651	\$4,752,526	\$5,162,177
22	Utilities	\$0	\$5,538,113	\$14,924,156	\$20,462,268
23	Construction	\$0	\$12,055,874	\$10,582,135	\$22,638,008
92	Government & Industries not Classified by the North American Industry Classification System	\$0	\$12,298,669	\$24,596,140	\$36,894,808
55	Management of Companies	\$0	\$34,662,868	\$22,338,006	\$57,000,872
81	Other Services	\$0	\$22,665,832	\$63,570,756	\$86,236,592
72	Accommodation & Food Services	\$0	\$23,416,420	\$78,301,032	\$101,717,448
56	Administrative & Waste Services	\$0	\$75,081,000	\$41,244,664	\$116,325,664
48 & 49	Transportation & Warehousing	\$0	\$71,765,880	\$54,350,080	\$126,115,968
42	Wholesale Trade	\$0	\$58,246,496	\$83,655,616	\$141,902,112
52	Finance & Insurance	\$0	\$47,238,428	\$98,846,360	\$146,084,784
62	Health & Social Services	\$0	\$42,793	\$275,712,736	\$275,755,520
TOTAL		\$2,635,662,260	\$959,773,412	\$1,198,212,565	\$4,793,648,161

V. Summary and Implications

Creative industries have a substantial effect on the Missouri economy. The creative industries as defined and described in this report directly generate over 69,000 jobs and produce over \$2.365 billion dollars in labor income. In total, the effect of the creative industries, including impacts generated through household consumption and business-to-business spending is that they support over 135,000 jobs and over \$4.793 billion dollars in labor income. These numbers are a strong indication that the creative industries are an important element of the Missouri economy.

Average wages for arts-centric industries are eleven percent higher than average wages for all industries in the state, indicating that creative industries provide a higher than average standard of living for employees in Missouri. Employment outlooks are particularly strong in the Media and Information sub-sector of the creative industries. This sub-sector employs over 32,000 people and pays wages comparable to average wages for the state. Another strong industry sub-sector is Professional Design Services, a sub-sector that employs almost 25,000 people and pays wages that are above the state average.

In addition to the immediate impact of the creative industries in Missouri, research by academics, non-for-profit and for-profit companies has shown that the presence of arts-centric businesses and institutions in a region may attract other businesses to locate in that area.ⁱⁱⁱ This is because arts-centric businesses provide cultural amenities such as theaters, movies, and art galleries. The presence of cultural amenities makes these areas more attractive to creative and well-educated people, who are exactly the type of employees that high growth companies are interested in hiring. Companies are often willing to move to these areas so as to have access to an attractive workforce that will work for reasonable wages. One example of a city that has experienced this type of growth is Austin, Texas, a city that has had a phenomenal amount of economic growth over the past ten years.

The combination of the direct impact of creative industries in Missouri and research showing that the presence of both for-profit and not-for-profit arts-centric industries can strengthen economic development suggests that Missouri should focus on nurturing creative industries within the state. Promotion of creative industries will allow Missouri to both increase employment through the arts and become more attractive to non-arts industries that are interested in re-locating in areas with low operation costs and high cultural amenities.

VI Appendices

Appendix One: Mean Creative Occupation Employment By Industry for Industries with Above Average Creative Industry Employment^{iv}

NAICS CODE	INDUSTRY	NUMBER OF EMPLOYEES IN THE INDUSTRY WHO ARE CLASSIFIED AS WORKING IN CREATIVE OCCUPATIONS	PERCENT OF EMPLOYEES IN THE INDUSTRY WHO ARE CLASSIFIED AS WORKING IN CREATIVE OCCUPATIONS
7115	Independent Artists, Writers, and Performers	321	65.26
5151	Radio and Television Broadcasting	3004	55.02
5414	Specialized Design Services	746	43.6
4531	Florists	1022	42.07
7111	Performing Arts Companies	1302	38.36
7112	Spectator Sports	777	36.2
5191	Other Information Services	157	30.6
5111	Newspaper, Periodical, Book, and Directory Publishers	4865	27.64
5122	Sound Recording Industries	51	23.18
3346	Manufacturing and Reproducing Magnetic and Optical Media	55	22
5161	Internet Publishing and Broadcasting	46	17.49
6116	Other Schools and Instruction	627	17.48
7113	Promoters of Performing Arts, Sports, and Similar Events	345	15.77
5419	Other Professional, Scientific, and Technical Services	1536	14.82
5121	Motion Picture and Video Industries	551	14.78
5418	Advertising and Related Services	1278	14.5
5324	Commercial & Industrial Machinery & Equipment Rental and Leasing	198	12.91
4872	Scenic and Sightseeing Transportation, Water	21	9.63
5152	Cable and Other Subscription Programming	51	8.74
4831	Deep Sea, Coastal, and Great Lakes Water Transportation	<20	7.69
8131	Religious Organizations	3219	7.27
5331	Lessors of Nonfinancial Intangible Assets	22	7.05
5619	Other Support Services	409	5.48
00601	Self-Employed Workers, Primary Job	12016	5.44
8129	Other Personal Services	299	5.23
5323	General Rental Centers	52	4.57
8134	Civic and Social Organizations	388	4.41
5412	Accounting, Tax Preparation, Bookkeeping, and Payroll Services	902	4.27
3231	Printing and Related Support Activities	711	3.95
8132	Grantmaking and Giving Services	68	3.88
4248	Beer, Wine, and Distilled Alcoholic Beverage Merchant Wholesalers	89	3.69
7131	Amusement Parks and Arcades	115	3.54
8139	Business, Professional, Labor, Political, and Similar Organizations	316	3.33
5413	Architectural, Engineering, and Related Services	547	2.84
7121	Museums, Historical Sites, and Similar Institution	54	2.7
3141	Textile Furnishings Mills	27	2.64
4421	Furniture Stores	132	2.64
4812	Nonscheduled Air Transportation	<20	2.53
8133	Social Advocacy Organizations	54	2.51
7139	Other Amusement and Recreation Industries	463	2.48
3333	Commercial and Service Industry Machinery Manufacturing	73	2.47
7212	RV (Recreational Vehicle) Parks and Recreational Camps	27	2.47
6117	Educational Support Services	22	2.42
MEAN INDUSTRY EMPLOYMENT OF CREATIVE OCCUPATIONS			2.39
ONE STANDARD DEVIATION FROM THE MEAN			7.64
CREATIVE INDUSTRY THRESHOLD			10.03

Appendix Two: The IMPLAN Economic Impact Model

The **IMPLAN input-output model** is utilized to estimate the impacts of economic events in Missouri counties. Developed by the Minnesota IMPLAN Group, cross-sectional data at the national, state and county level is compiled to construct a comprehensive and accurate database at the county-level that has a consistent structure. IMPLAN is widely used by researchers in industry, government and academe. Input-output analysis is a means of examining relationships within an economy, both between businesses and between businesses and final consumers. It captures all monetary market transactions for consumption in a given period. IMPLAN assumes that there are constant returns to scale, no supply constraints, a fixed commodity input structure, a homogenous output structure, and that production technology is fixed. The model estimates how a change in one or several economic sectors affects an entire economy. IMPLAN derives three types of economic effects that permit one to assess the impact of economic events: *direct effects* are economic impacts directly attributable to events; *indirect effects* are business-to-business economic impacts; and *induced effects* are business-to-consumer and household expenditure impacts (spending of discretionary income by employees). While IMPLAN is a powerful tool in examining economic changes at the local level, it is limited in that it cannot predict long-term effects. It only offers a snapshot of an area's economy at one point in time, and is therefore relatively static. Further information about the IMPLAN input-output model can be obtained at the IMPLAN Group's website: www.implan.com.

Endnotes

ⁱ Florida, Richard. *The Rise of the Creative Class*. New York: Basic Books 2002.

ⁱⁱ Wages in this sub-sector are highly influenced by the wages of professional athletes who are classified in the 'Arts, Design, Entertainment, Sports and Media Occupations' by the Bureau of Labor Statistics of the United States Department of Labor.

ⁱⁱⁱ Studies by the non-profit organization Americans for the Arts and the for-profit organization Mount Auburn Associates have shown a positive impact of arts-centric businesses on economic development.

^{iv} This Chart shows creative occupation employment for all industries with above average creative occupation employment calculated as a percentage of total employment.

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